TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AI	Artificial Intelligence
ANN	Artificial Neural Network
CDC	Centers for Disease Control and Prevention
DF	Dengue fever
DHF	Dengue haemorrhagic fever
DHO	District Health Office
HLANGAT	Hulu Langat
HSEL	Hulu Selangor
KM	Kilometres
KSEL	Kuala Selangor
MAD	Mean Absolute Deviation
MAPE	Mean Absolute Percentage Error
MLP	Multilayer Perceptron
MMD	Malaysian Meteorological Department
MOH	Ministry of Health, Malaysia
MRN	Model Rangkaian Neural
MRTS	Model Rangkaian Tak Selari
MSE	Mean Square Error
NLRM	Nonlinear Regression Model
NN	Neural Network
NNM	Neural Network Model
OLS	Ordinary Least Square

RBF	Radial Basis Functions
RM	Regression Model
RMSE	Root Mean Square Error
RNN	Recurrent Neural Network
SHD	State Health Department of Selangor
SSE	Summation of Square Error
VBDC	Vector Borne Disease Control Section
WHO	World Health Organization

LIST OF SYMBOLS

y	Output node
x	Input node
f	Transfer/ activation function
w	Weight
V	Function of weights vectors
a	Learning rate / intercept
β	Momentum rate / Slope
ε	Error
(w_{ji}, w_{kj})	Bias
(θ_{ji}, θ_{kj})	Initial values of weight
$E_{grad.}$	Gradient error
E_{min}	Minimum error
$\overline{W}$	Weight vector
Δw	Change in the weight
δj	Error associate with j
$o'j$	Sigmoid prime
E	Total prediction error
e	Error (residual)
N	Number of sample
$\sum$	Summation
$\overline{x}$	Mean of x dataset
$\overline{\theta}$	Coefficients/ bias

sin	Sine
cos	cosine
exp	exponent
df	degree of freedom
R^2	R-Square
H	Hypothesis
c	Center vector
exp	Exponent
y	Dependent variable
$\hat{y}$	Estimated value
d	Dengue cases data
r	Rainfall data
n	Approximate location of dengue cases data